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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,550	07/11/2003	Gregory Alan Beckman	19038- 1A	5164

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EXAMINER

DRODGE, JOSEPH W

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,550

Applicant(s)

BECKMAN ET AL.

Examiner

Joseph W. Drodge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 33-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 33-38 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This application contains claims 33-38 drawn to an invention nonelected without traversing arguments as indicated in the Office Action mailed October 3, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,8,15,16 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Driscoll et al patent 4,517,085.

Driscoll et al disclose interconnected filter modules, each comprising housings 18 with inlets and outlets and filter media 94, and means for interconnecting the modules 22/88 [as in claims 1,24 and 25].

The following is disclosed per dependent claims: formation of a single volume body/cell by housing 12 for claims 2 and 26; and FRP plastic or equivalent at column 4, line 30 for claim 8. The filters of Driscoll are mechanical, particulate type removing filters and are of relatively fine solids polishing membrane media (column 4, lines 64-65) as in claims 15 and 16.

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Claims 1,2,8,10,12,13,15,16 and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheyne patent 6,641,732. For claims 1,24 and 25, Cheyne discloses modular tank systems 10,103 comprising housings of the tank walls, including end walls which each contain filtering means within and may be joined to other tanks systems as modular systems by joining connectors (i.e. "joints") (column 2, lines 2-59, column 14, lines 47-59, column 15, lines 1-7, column 17, lines 19-27 and column 18, lines 15-21). For dependent claims the filters of Cheyne include a biofilter and/or foam fractionator and oxygenator (column 13, lines 11-34) as well as mechanical solids filter (column 13, lines 1-3) as in claims 10,12,13,15 and 16, components of PVC (column 14, lines 35-37) as in claim 8, the system allowing continuous flow between modules or forming a single cell system (column 2, lines 56-61) as in claims 2 and 26.

Claims 1-3,5-9,15 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Pall patent 4,170,556.

Pall discloses modular filtration housings 1, each containing filter elements 3 interconnected by joints comprised of mating flanges forming seals (column 5, lines 26-36 and column 6, lines 35-48) as in claims 1-3,15 and 24-27. the modules forming a single cell within outer enclosure 10 as in claims 2 and 26, being of any plastic component (column 3, lines 33-38 or column 7, lines 54-59) as in claims 8 & 9, optionally also having gasket or caulk adhesive type sealing (column 3, lines 22-65).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11,14,17and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheyne in view of Lee et al patent 5,961,831.

In general, these claims differ in requiring various filtration media types encompassing a more complete aquarium or aquatic life filtration system which are all taught by Lee et al and obvious to include with the Cheyne system, for more thorough purification of recirculating aquarium, aquaria system water to enable aquatic life to better thrive.

For claims 11 and 17, It would have been obvious to have included the carbon dioxide stripper as taught by Lee et al at column 13, lines 53-57 to improve quality of the entrained air bubbles ingested by the aquatic life.

For claims 14 and 18, it would have been obvious to have included a UV sterilizer as at Lee et al column 3,lines 54-55, to remove bacteria that would otherwise be harmful to aquatic life processes.

Claims 19,20,23, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheyne in view of Munsch et al patent 5,667,671.

These claims differ in requiring the biological filter to encompass elements of vertical and centrally located baffle, air manifold, retaining screen and large surface area. Munsch et al teach such baffles 106, air manifold (column 6, lines 44-56), and large surface area of biological filter media at large plastic balls 174 and also retaining screen 172. It would have also been obvious to have modified the biological filter of Cheyne to include such air manifold, retaining screen, baffle and large surface area, to

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optimize oxygenation, prevent loss of the filtration media, promote longer residence times and optimize contact with the purifying bacteria, respectively.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheyne in view of Munsch et al as applied to claim 20 above, and further in view of Willinger patent 4,714,547. These differ in requiring the biological media to comprise extruded polyethylene or polystyrene. It would have also been obvious to have utilized media of extruded polymer, as taught by Willinger at column 4, lines 25-41 and 58-68 for the ease of manufacture of such media.

Claims 4 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall in view of Evanovich et al PG PUBS document US 2003/0173286.

These claims also require the means for joining to comprise one or more bolts. Evanovich (having an effective filing date of 2/8/2002) teaches flanged connections between joined filter modules with studs or bolts (paragraph 48). It would have been obvious to have utilized the studs or bolts of Evanovich in the joining connections of the Pall device, to provide a more secure, more permanent connection or attachment of modules.

Applicant's arguments with respect to claims rejected over Koster have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed on April 19, 2006, with respect to rejections of claims over Driscoll et al have been fully considered but they are not persuasive. It is argued that Driscoll does not disclose a device that can be expanded, without limit, or can be expanded or reduced in overall size. It is submitted that the filter housings of Driscoll

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are explicitly defined as “modules” (column 2, lines 51-55), and nothing in the Driscoll disclosure limits the number of modules, any number may be provided (column 3, lines 35-37). The instant claims do not preclude there being a surrounding external housing for a plurality of connected filter modules with housings, or include any language concerning expanding or reducing the size of the device or connecting or disconnecting modules.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

June 1, 2006


JOSEPH DRODGE
PRIMARY EXAMINER